

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A digital data storage system comprising:
a storage element, the storage element comprising a plurality of storage locations each configured to store a retrievable record;
a memory configured to store, associated with each storage location, a descriptor of data, each descriptor of data comprising a check value for the record stored in the respective storage location associated with the descriptor of data;
a cache memory comprising a plurality of cache slots; and
a control device configured to
 - i. initiate retrieval of a record one of said records in response to receipt of a retrieval request requesting retrieval of the record one of said records from one of the said storage locations, and,
 - ii. after the record said one of said records has been retrieved in response to the request, use the check value from the descriptor associated with the storage location identified in the retrieval request to verify that the record one of said records is from the one of said storage location locations identified in the retrieval request;
the control device being configured to, after retrieving the record said one of said records, selectively store the record in one of the cache slots and store a pointer thereto in the said descriptor of data, selective storage of the record being made such that a plurality of records from the same storage element are stored in the same cache slot;

wherein the descriptor of data includes:

a header section and a check value section;

wherein the header section includes information about the record stored in the respective storage location; and

wherein the check value section includes the check value for the record stored in the respective storage location associated with the descriptor of data.

2. (Currently Amended) A digital data storage system as defined in claim 1, the control device being further being configured to, if a record one of said records stored in one of said the storage locations is updated, generate a check value for the record said one of said records and store the check value in the descriptor of data associated with said one of the said storage locations.

3. (Currently Amended) A digital data storage system as defined in claim 1, in which the said control device is further configured to, if a record one of said records stored in one of the said cache slots is updated, generate a check value for said the record and store the check value in the descriptor of data associated with said one of the said storage locations.

4. (Currently Amended) A method of operating a digital data storage system, the digital data storage system comprising a storage element, the storage element comprising a plurality of storage locations each configured to store a retrievable record, and a memory configured to store, associated with each storage location, a descriptor of data, the descriptor of data comprising a check value for the record stored in the respective storage location associated with the descriptor of data, the digital data storage system further comprising a cache memory comprising a plurality of cache slots, the method comprising the steps of:

in response to a retrieval request requesting retrieval of a record from one of the said storage locations, initiating retrieving the said record; and

after retrieving the said record, selectively storing the record in one of the cache slots and storing a pointer thereto in the said descriptor of data, the selective storage being made such that a plurality of records from the same storage element are stored in the same cache slot;

wherein the descriptor of data includes:

a header section and a check value section;

wherein the header section includes information about the record stored in the respective storage location; and

wherein the check value section includes the check value for the record stored in
the respective storage location associated with the descriptor of data.

5. (Currently Amended) A method as defined in claim 4, further comprising the step of, if a record ~~said record~~ stored in one of the ~~said~~ storage locations is updated, generating a check value for said the record and storing the check value in the descriptor of data associated with said one of the ~~said~~ storage locations.

6. (Currently Amended) A method as defined in claim 4, ~~said method further~~ comprising the step ~~steps~~ of, if a record ~~one of said records~~ stored in one of the ~~said~~ cache slots is updated, generating a check value for the ~~said~~ record and storing the check value in the descriptor of data associated with said one of the ~~said~~ storage locations.

7-8. (Canceled)